REMARKS

Favorable reconsideration of this application is requested in view of the following remarks. Claims 1-25 and 36-44 were previously withdrawn from further consideration. Claims 1-29 and 31-44 are pending in this application. By this Amendment, claims 26, 29 and 31 are amended; and claim 30 is canceled.

Claims 26 and 28 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,024,525 to Yamanaka, hereinafter *Yamanaka*, in view of U.S. Application Publicaiton No. 2001/0019691 to Boss, hereinafter *Boss*. Claims 29-31, 34 and 35 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Yamanaka* in view of *Boss*, and further in view of U.S. Patent No. 6,090,728 to Yenni et al., hereinafter *Yenni*. Claims 29, 32 and 33 are rejected under 35 U.S.C. § 103(a) as being unptatentable over *Yamanaka* in view of *Boss* and further in view of U.S. Application Publication No. 2002/0064437 to Kuramoto et al., hereinafter *Kuramoto*.

Figure 1 in the present application shows a book binding assembly. An apparatus 100 includes a platen 102 having a contact surface 104. The platen 102 is translatable in a direction 106. A first clamping body 108 has a surface 110 that is oriented parallel to and facing an opposing surface 112 of a second clamping body 114. During operation the opposing surfaces 110, 112 of the clamping bodies 108, 114 are oriented toward a planar surface of a sheet of the plural sheets that are to be bound. The opposing surfaces 110, 112 are translatable to provide force to the sheet of the plural sheets. Active heat sinks 120 are provided in thermal communication with at least one of the platen 102 and at least one of the clamping bodies 108, 114.

Claim 26 broadly encompasses that subject matter. Claim 26 recites, among other features, actively withdrawing heat from a backed hot melt adhesive sheet to bring a temperature of a hot melt adhesive of the backed hot melt adhesive sheet from above a glass transition temperature of the hot melt adhesive to below the glass transition temperature of the hot melt adhesive.

The Examiner acknowledges that *Yamanaka* does not disclose an active cooling member within a clamping jaw. However, the Examiner relies on the heat sink 30 in *Boss* to assert that it was well known in the art to use active heat sinks to lower temperature, and that a skilled person would have found it obvious to make such a modification of the*Yamanaka* system to arrive at the claimed subject matter. However, *Yamanaka* and *Boss*, considered individually or in combination as suggested by the Examiner, would not have taught or suggested at least the claimed feature of actively withdrawing heat from the backed hot melt adhesive sheet to bring a temperature of a hot melt adhesive of the backed hot melt adhesive sheet from above a glass transition temperature of the hot melt adhesive to below the glass transition temperature of the hot melt adhesive, as recited in claim 26, and as similarly recited in claim 29.

Further, one skilled in the art would not have found the alleged modification to be obvious, and instead would have found that the cited documents teach away from the claimed subject matter. As previously argued of record, one skilled in the art would not have been motivated to use the relatively large heat sink 30 in *Boss* to modify *Yamanaka*, because the large size of heat sink 30 would be detrimental to *Yamanaka's* disclosed device. As Applicants have previously submitted of record, when presented with the disclosures in *Yamanaka* and *Boss*, the skilled person

would not have had any direction or suggestion, in view of those disclosures to add an active heat sink to the system of *Yamanaka*, nor do the documents teach or suggest how features described in the two documents would have been combined. Further, the combination simply would not have resulted in the claimed feature of actively withdrawing heat from the backed hot melt adhesive sheet to bring a temperature of a hot melt adhesive of the backed hot melt adhesive sheet from above a glass transition temperature of the hot melt adhesive to below the glass transition temperature of the hot melt adhesive, as recited in claim 26.

For at least those reasons, Claim 26 is not obvious and is allowable. Dependent claims 27, 28, 32 and 33 are allowable at least by virtue of their dependence from Claim 26.

Claim 29 is rejected as being unpatentable over *Yamanaka* in view of *Boss* and further in view of *Yenni*. Claim 29 is also rejected as being unpatentable over *Yamanaka* in view of *Boss* and further in view of *Kuramoto*.

Claim 29 recites, among other features, softening the hot melt adhesive of the backed hot melt adhesive sheet prior to the sheet contacting the spine surface, a temperature of the hot melt adhesive being raised above a glass transition temperature of the hot melt adhesive; and actively absorbing heat from a hot melt adhesive of the backed hot melt adhesive sheet into at least a portion of the clamping jaw with an active heat sink.

As noted above with regard to Claim 26, neither *Yamanaka* nor *Boss*, alone or in combination, disclose an active heat sink, in the context of Claims 26 or 29. Also, neither *Yenni* nor *Kiramoto* is relied upon for, or discloses, subject matter related to an active heat sink, wherein a hot melt adhesive of the backed hot melt adhesive

sheet is softened prior to the sheet contacting the spine surface, a temperature of the hot melt adhesive being raised above a glass transition temperature of the hot melt adhesive.

The Examiner has asserted on page 4 of the final Office Action, that "Yennie et al. are exemplary in the bonding art of heating a polymer to above its softening point wherein the definition of the term "softening point" for the polymer is associated with its glass transition temperature above which the adhesive becomes soft and pliable." However, the Yenni, Jr. et al. patent merely sets forth the term "softening point" of a polymer being associated with its glass transition temperature above which the polymer becomes soft and pliable (col. 5, lines 58-60). The Yenni, Jr. et al. patent then merely applied the term "softening point" of a polymer to describe fibers that are substantially surrounded by a thermoplastic resin fiber coat (col. 8, lines 22-30). The softening point of 80° C of the enumerated "polymeric materials" as disclosed by the Yenni, Jr. et al. patent (col. 8, lines 28-30) does not serve as being "exemplary in the bonding art of heating a polymer to above its softening point" as the Examiner has asserted. Accordingly, Applicant respectfully traverse the Examiner's ultimate conclusion.

Accordingly, even if combined as the Examiner has suggested, the various combinations of *Yamanaka*, *Boss*, *Yenni*, and/or *Kuramoto* would not have taught or suggested at least the claimed features of 1) softening the hot melt adhesive of the backed hot melt adhesive sheet prior to the sheet contacting the spine surface, a temperature of the hot melt adhesive being raised above a glass transition temperature of the hot melt adhesive; and 2) actively absorbing heat from a hot melt

adhesive of the backed hot melt adhesive sheet into at least a portion of the clamping jaw with an active heat sink.

For the foregoing reasons, claim 29 is also allowable. Dependent claims 31, 34 and 35 are allowable at least by virtue of their dependence from Claim 29.

All objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the application is in condition for allowance and a Notice of Allowance is respectfully solicited.

Respectfully submitted,

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